REMARKS

Applicants submit this Reply in response to the final Office Action mailed April 2, 2009. Claims 17 and 19-38 are currently pending, of which claims 17 and 36 are independent. In this response, Applicants have amended independent claim 17 to round out the protection for the invention to which they are entitled. In the final Office Action, the Examiner maintained the rejections of claims 17, 20, 21, 32-34, 36, and 37 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,456,847 ("Lilja et al.") in view of U.S. Patent No. 7,151,933 ("Chen et al."). The Examiner also maintained the rejections of claims 22-31, 35, and 38 under 35 U.S.C. § 103(a) as being unpatentable over Lilja et al. in view of Chen et al. and further in view of U.S. Patent No. 6,940,827 ("Li et al."). Applicants respectfully traverse the pending claim rejections and request reconsideration of the application, as presently amended.

Applicants note that dependent claim 19 was not rejected in the final Office Action dated April 2, 2009. Accordingly, Applicants request clarification as to the status of pending claim 19.

Rejections Under 35 U.S.C. § 103(a) of Independent Claims 17 and 36

In the Reply filed on January 28, 2009, Applicants reasoned that neither Lilja et al. nor Chen et al., whether considered individually or in combination, disclose or suggest at least "a type of radio access used by at least one base radio station . . . is *updated*" as recited in then-pending claim 17, or "*updating* at least one base radio station" as recited in claim 36. The Examiner acknowledged that Lilja et al. fails to disclose or suggest at least "updating" at least one base radio station as recited in then-

pending independent claims 17 and 36. *See* non-final Office Action dated October 28, 2008, at 8-9; final Office Action dated April 2, 2009, at 10.[1]

Applicants explained that Chen et al. does not remedy the deficiencies in Lilja et al. for at least the reason that Chen et al. fails to disclose or suggest a single-carrier base station BS1 that can be "updated" to provide multi-carrier radio access, e.g., thereby converting the single-carrier base station BS1 to a multi-carrier base station BS3. Specifically, the single-carrier base stations BS1 in Chen et al. always provide single-carrier radio access, and the multi-carrier base stations BS3 always provide multi-carrier radio access within a network infrastructure. *See, e.g.,* Chen et al., col. 9, ll. 63-66. While Chen et al. discloses a base-station handoff procedure in which the radio access at a mobile station can switch from a single-carrier system (BS1) to a multi-carrier system (BS3) as the mobile station passes from a BS1 cell to a BS3 cell, Chen et al. does not additionally disclose or suggest updating the type of radio access used at a base radio station when the mobile station is handed off between adjacent base stations. Rather, the adjacent base stations (BS1 and BS3) have fixed types of radio access that are not updated.

In view of the above, Chen et al., whether taken alone or in combination with Lilja et al., fails to disclose or suggest at least "a type of radio access used by at least one base radio station . . . is updated to support the multi-carrier radio access," as

[1] The Office Actions contain a number of statements characterizing the claims and related art. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Actions. For example, while Applicants agree that Lilja et al. is missing elements recited in independent claims 17 and 36, Applicants do not agree with the Examiner's characterization that "Lilja '847 discloses all the claim limitations with the exception of" certain missing claim elements.

recited in then-pending independent claim 17, or "updating at least one base radio station . . . from using the first type of radio access to using the multi-carrier radio access," as recited in independent claim 36.

In the final Office Action, the Examiner disagreed with the Applicants' reasoning, apparently on the basis that the pending claims could be "broadly interpreted" to cover updating a type of radio access at a mobile station during the base-station handoff procedure in Chen et al. *See, e.g.,* final Office Action, at 2 ("The Examiner asserts that Chen '933 discloses the above claimed features (see, handoff from single carrier service to multi-carrier services . . . when the mobile unit travels from large service areas (i.e., macrocell) to small service areas (i.e., microcell)"); at 3 ("A type of radio access was broadly interpreted").

In this response, Applicants have amended independent claim 17 to clarify that the claimed "updated" type of radio access occurs at the base radio station, in contrast with the Examiner's "broadly interpreted" prior understanding of independent claim 17. More particularly, independent claim 17, as presently amended, recites, among other things, "at least one base radio station . . . capable of being updated from providing a first type of radio access used in the at least one macrocell to providing the multi-carrier radio access used in the at least one microcell." Because amended independent claim 17 expressly requires the type of radio access can be updated at the "at least one base radio station," Applicants submit that the Examiner cannot reasonably rely on the type of radio access being updated at a mobile station during a handoff procedure in Chen et al.

Independent claim 36 likewise recites "updating" a type of radio access at the base radio station, rather than changing a type of radio access at a mobile station during a handoff procedure. Claim 36 calls for a combination including, for example, "updating at least one base radio station . . . from using the first type of radio access to using the multi-carrier radio access." Since Chen et al. discloses base stations providing fixed types of radio access— either single-carrier radio access (BS1) or multi-carrier radio access (BS3)—Applicants submit that the base-station handoff procedure in Chen et al. cannot reasonably anticipate or render obvious "updating at least one base radio station . . . from using the first type of radio access to using the multi-carrier radio access," as recited in independent claim 36.

Because Lilja et al. and Chen et al. each fails to disclose or suggest updating a type of radio access at a base radio station, these cited references, whether considered alone or in any reasonable combination, likewise fail to disclose or suggest at least "at least one base radio station . . . capable of being updated from providing a first type of radio access used in the at least one macrocell to providing the multi-carrier radio access used in the at least one microcell," as recited in amended independent claim 17, or "updating at least one base radio station . . . from using the first type of radio access to using the multi-carrier radio access," as recited in independent claim 36. For at least the foregoing reasons, Applicants submit that independent claims 17 and 36 in their present forms are allowable over the art of record.

In a Note intended "for argument sake" in the final Office Action, the Examiner mentioned U.S. Patent No. 6,256,500 ("Yamashita") for its alleged disclosure of updating a type of service when a mobile unit roams from a macrocell to a microcell.

See final Office Action dated April 2, 2009, at 3. The Examiner did not apply Yamashita in any claim rejection. Applicants respectfully point out that Yamashita suffers the same deficiencies as Lilja et al. and Chen et al.

Yamashita discloses handoff of a mobile station between adjacent base-station cells. *See, e.g.,* Yamashita, Title. The handoff procedure in Yamashita occurs based on the moving speed of the mobile station in overlapping macro and micro cells. *See, e.g.,* Yamashita, col. 3, ll. 59-65; FIG. 3; *see also, generally,* col. 5, line 14 to col. 7, line 67. Thus, Yamashita concerns a change in the type of radio access received at a mobile station resulting from the base-station handoff. Yamashita does not further disclose or suggest updating the type of radio access at a base station, let alone "at least one base radio station . . . capable of being updated from providing a first type of radio access used in the at least one macrocell to providing the multi-carrier radio access used in the at least one microcell," as recited in amended independent claim 17, or "updating at least one base radio station . . . from using the first type of radio access to using the multi-carrier radio access," as recited in independent claim 36. Instead, like Chen et al., the base radio stations in Yamashita appear to provide fixed types of radio access as the mobile station is handed off between adjacent cells.

Rejections Under 35 U.S.C. § 103(a) of Dependent Claims 19-35, 37, and 38

The Examiner rejected dependent claims 20, 21, 32-34, and 37 for being unpatentable under 35 U.S.C. § 103(a) over Lilja et al. in view of Chen et al. and, in addition, rejected dependent claims 22, 23, 24-31, 35, and 38 under 35 U.S.C. § 103(a) as being unpatentable over Lilja et al. in view of Chen et al. and further in view of Li et al. Notwithstanding any teachings of Lilja et al., Chen et al., or Li et al. relative to

the subject matter recited in dependent claims 19-35, 37, and 38, these pending claims depend on independent claims 17 or 36 and are therefore allowable for at least the same reasons discussed above with reference to the pending 35 U.S.C. § 103(a) rejections of these independent claims.

Conclusion

The preceding remarks are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding remarks in favor of patentability are advanced without prejudice to other possible bases of patentability.

Applicants respectfully request that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 17 and 19-38 in condition for allowance. Applicants submit that the proposed amendments do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicants respectfully point out that the final action by the Examiner presented some new arguments as to the application of the art against Applicants' invention. It is respectfully submitted that the entering of the Amendment would allow the Applicants to reply to the final rejections and place the application in condition for allowance. Finally, Applicants submit that the entry of this Amendment

would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims. Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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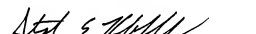
Dated: July 1, 2009

By: 

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